

THE Essex Institute of Salem, Massachusetts, has issued a notice of "meetings for the exhibition and study of Fungi" to be held at the Institute on July 17, August 29, September 5, 11, 18, and 25. These dates fall on Mondays, except September 5, which is Tuesday. "All who are interested in Edible and Poisonous Mushrooms are invited to attend, and to send for exhibition" any specimens that are complete and in a good state of preservation.

The committee in charge consists of Richards B. Macintosh, of Peabody, and Willis H. Ropes of Salem. Authorities on mushrooms are expected to speak at these meetings.

It is interesting to see others following the example set for a number of years by the Boston Mycological Club, whose exhibitions of named fungi are again this year a regular feature on Saturdays at Horticultural Hall from July to November.

SOME LITHOLOGICAL VARIATIONS OF RIBES.

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THE common gooseberry of eastern New England and the Maritime Provinces, *Ribes oxycanthoides*, L., is a more or less prickly shrub, with the mature fan-shaped leaves of the fertile branches mostly cuneate or truncate at base, dark green and glabrate above, light green and only slightly villous on the veins beneath. The species is common in the coastal district either in swamps or in dry or rocky soil, and it extends inland as a somewhat local shrub throughout New England, west beyond the Great Lakes, and north to Hudson Bay. Its greatest development is apparently in the coastal area from southern New England to Newfoundland and eastern New Brunswick. In the southern half of Gaspé Peninsula in eastern Quebec the common New England form of the plant is apparently very rare; extended explorations along the Baie des Chaleurs, eastward to Gaspé Basin, and inland from fifteen to thirty miles along the larger rivers, showing the shrub to be probably absent from the great calcareous region (Lower Carboniferous and Silurian) which extends over most of the county of Bonaventure and

the southern part of the county of Gaspé. A single station only has been noted in the former county, a small clump of bushes on the "common" at New Carlisle, a district covered with white sea-sand rather than the red calcareous soil of the surrounding country.

In eastern Gaspé County, however, the limestones and calcareous slates of the Silurian and the strongly calcareous red conglomerates (Bonaventure conglomerates) of the Lower Carboniferous areas give way very largely to the non-calcareous dark sandstones and shales of the Devonian system; and the vegetation from Malbaie to the mouth of the Dartmouth River (and probably beyond) becomes essentially that of eastern New England. There, in an area notable from the presence of such plants as *Picea nigra*, *Nemopanthus fascicularis*, *Typha latifolia*, *Prenanthes trifoliolata*, *Geum virginianum*, *Luzula campestris*, var. *multiflora*, and many other characteristic species of eastern New England and New Brunswick, which are rare or unknown on the calcareous soils of Gaspé Peninsula, the ordinary type of *Ribes oxyacanthoides*, with leaves only slightly pubescent, is common, and it is probable that it occurs on the broad Devonian upland which occupies the center of the Peninsula.

Throughout the great Silurian and Lower Carboniferous areas which lie south of the central Devonian upland of Gaspé Peninsula typical *Ribes oxyacanthoides*, as already stated, is apparently absent, though it occurs locally on the sand dunes of New Carlisle, and probably on other dunes and beaches. Associated, however, with such lime-loving plants as *Carex livida* and *C. vaginata*, *Rhynchospora capillacea*, *Juncus Stygius*, var. *Americanus*, *Tofieldia glutinosa*, *Salix candida*, *Pinguicula vulgaris*, and *Senecio discoideus*, in the damp arbor-vitae forest and about the numerous marly ponds which characterize the Silurian and Lower Carboniferous districts, there is a smooth-fruited gooseberry which in leaf-outline and habit suggests *Ribes oxyacanthoides*, but which has the lower surface of its mature leaves so copiously soft-villous as to be grayish-white or silvery, while the pilose upper surfaces are dull pale green. This handsome shrub with the permanently villous lower leaf-surfaces was found by Messrs. J. F. Collins, A. S. Pease, and the writer in essentially all arbor-vitae swamps and on the margins of marl-ponds and occasionally on damp calcareous cliffs, from Carleton, near the head of the Baie des Chaleurs, to Percé, at the tip of the Peninsula. Confined to the strongly calcareous soils, where it fruits profusely, this shrub

was found venturing nowhere from the conditions which best suit it, though on cliffs at the summit of Tracadigash Mountain, a ragged trap ridge rising out of the calcareous tableland to a height of about 2000 feet above the Baie des Chaleurs, the bushes were poorly developed and mostly sterile.

In its leaf-outline, fruit and shriveled flowers, as well as in the character of its bark and prickles, this very pubescent shrub of southern Gaspé Peninsula is essentially identical with *Ribes oxyacanthoides*, and the only character which seems to distinguish it clearly is the extreme development of pubescence on its foliage. This character, however, is so constant over a broad and clearly marked geological area that the plant is of special interest as an extreme which may be called

RIBES OXYACANTHOIDES, L., var. **calcicola**. Resembling the species, but young branches, petioles, and lower leaf-surfaces permanently and densely white tomentose.—Calcareous soils of Bonaventure and Gaspé Counties, QUEBEC: Arbor-Vitae swamp, Carleton, July 27, 1904, trap cliffs near summit of Tracadigash Mt., July 24, 1904, Arbor-Vitae swamps at the mouth of the Bonaventure River, August 2, 1904 — **type** (*J. F. Collins, M. L. Fernald & A. S. Pease*); also noted in similar habitats at New Richmond, Grand River, and Percé, and upon the Little Cascapedia and Dartmouth Rivers. A flowering specimen from Mackinaw, Michigan (*Loring*) in the Gray Herbarium may belong here.

A striking difference in the degree of pubescence, suggesting that shown in *Ribes oxyacanthoides*, is found also in *R. Cynosbati*. In New England and Eastern Canada, at any rate, the latter shrub, with permanently soft-pubescent leaves and spiny berries, abounds in the interior strongly calcareous regions, where the smooth-leaved typical *R. oxyacanthoides* is rare, but from the non-calcareous regions near the coast and in central and eastern Maine and the Maritime Provinces it is quite absent. This typical form of *R. Cynosbati*, with soft-pubescent leaves extends through the St. Lawrence basin to the Great Lakes and beyond, and southward in the Eastern States. An extreme with leaves quite as glabrate as in true *R. oxyacanthoides* is found on the south shore of Lake Erie and on the slopes of some of the higher Alleghanies. Whether this smooth-leaved extreme is, like the typical smooth-leaved *R. oxyacanthoides*, confined primarily to the less calcareous soils, the data at hand do not clearly show; but the very glabrate phase of the plant seems worthy distinction as

RIBES CYNOSBATI, L., var. *glabratum*. Leaves pubescent only with scattered hairs, becoming glabrate in age.— VIRGINIA, northeast slope of White Top Mountain, Smyth County, altitude 4000–5000 feet, May 28–29, 1892 (*J. K. Small*): NORTH CAROLINA, slopes of Mt. Mitchell, August 8, 1897 (*Biltmore Herb.*, No. 3252b): OHIO, Painesville, 1871 (*H. C. Beardslee*); Oberlin, June, 1894 (*Hicks*).

GRAY HERBARIUM.

A SECOND VERMONT STATION FOR ARENARIA MACROPHYLLA. — *Arenaria macrophylla* was found by a road-side in the western part of Newfane, Vermont, on May 22d, in both bud and blossom. It was growing in coarse pebbly soil on the high bank which formed the southern side of the road, consequently with not much direct sunshine, in the partial shade of low trees of various kinds. It was apparently well established and from the scattered plants in its locality of perhaps six feet square evidently spreading. — S. J. BALLARD, Newfane, Vt.

ANAPHALIS MARGARITACEA, VAR. OCCIDENTALIS IN EASTERN AMERICA.— An abundant plant on some of the gravel bars of the Grand River, in Gaspé County, Quebec, is an *Anaphalis* with the lanceolate long-acuminate leaves bright green and glabrous above. In late June, 1904, when, with Messrs. Louis Cabot and George H. Richards, I examined the plant, it seemed very unlike the narrower-leaved plant with at least the young leaves tomentose above, the common Life Everlasting, *Anaphalis margaritacea*, of New England pastures. The Grand River plant was too immature for identification; but recently Mr. Richards has brought me specimens, nearly in anthesis, collected in July, 1904. These prove to be the northwestern *A. margaritacea*, var. *occidentalis*, Greene, Fl. Fran. 399 (1897), described as “common among sand hills of the seaboard from at least middle California to Alaska.” This strongly marked variety is probably of somewhat broad range about the Gulf of St. Lawrence, for it was collected at Channel on the Newfoundland coast in 1901 (*Howe & Lang*, no. 967).— M. L. Fernald, Gray Herbarium.

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